

REMARKS

This is a response to the non-final Office Action of September 26, 2003 filed with a petition for a two month extension of time and the requisite fee. The Applicants request reconsideration and reexamination of the application based upon the amendments presented above and the comments set forth below.

SUPPORT FOR CLAIM AMENDMENTS

Claims 4, 5, 7, 8, 10, 11, 13, 14, 44, 46-52, 54-60, and 62-69 have been amended. The Applicants submit that the amendments to these claims add no new matter for the reasons presented below. Therefore, the Applicants submit that these amendments may be properly entered.

Claim 4 has been amended to recite, in part:

wherein the recording information area comprises:

a partial recording information area where one or more partial recording information objects are recorded, each of the partial recording information objects including one or more unit audio information objects which are logically defined; and

a control data area where control data including partial recording information attribute information is recorded, the control data corresponding to each of the partial recording information objects, the partial recording information attribute information indicating attributes of the corresponding partial recording information objects,

and wherein one or more unit audio information attribute information pieces are collectively recorded in the aggregate attribute information area, the one or more unit audio information attribute information pieces corresponding to each of the unit audio information objects and indicating attributes of the corresponding unit audio information objects respectively, and wherein the aggregate attribute information area is formed at a position on the information storage medium such that the one or more unit audio information attribute information pieces can be detected prior to the one or more partial recording information objects and the control data,

(Underlining indicated added text)

Claims 7, 10, 13, 44, 52, 60, 68 and 69 have been similarly amended.

The Applicants submit that these amendments are supported in the specification at page 12, lines 2-12; page 19, lines 19-22; page 20, lines 23-26; page 10, line 24, page 16, lines 6-9; and Figs. 1 and 4. Support for these amendments is also additionally discussed below.

Claims 5, 8, 11, 14, 46-51, 54-59, 62-67, and 69 have been amended to retain proper antecedent basis to claim elements amended in the base claims from which these claims depend and/or to correct minor grammatical or typographical errors and/or to more clearly recite the subject matter that the Applicants consider to be the invention. Therefore, the Applicants submit that these amendments are supported by the claims as previously on file and the specification as originally filed.

The Applicants submit that the claim amendments add no new matter, since the amendments are supported by the specification. Therefore, the Applicants submit that the amendments may be properly entered.

CLAIMS REJECTION - 35 U.S.C. 112, First Paragraph

The Examiner rejects Claims 14-15 and Claims 44-69 under 35 U.S.C. 112, first paragraph. Specifically, the Examiner states that he can not ascertain support for the recitation of "partial recording information area where partial recording information is recorded." The Applicants assume that the Examiner meant to state Claims 4-15 and 44-69 are rejected under 35 U.S.C., first paragraph, since all these claims contain the specified claim feature.

The Applicants submit that these claims, as amended, do not add new matter to the application and are properly allowable under 35 U.S.C. 112, first paragraph. The Applicants note that these claims have been generally amended to recite "wherein the recording information comprises: a partial recording information area where one or more partial recording information objects are recorded." The Applicants submit that this claim feature is supported, for example, by Fig. 1 of the specification and the related text in the specification at page 11, l. 11 to page 12, l. 8. By way of example, but not of limitation, the "partial recording information area" recited in the claims,

as amended, is supported by the disclosure of a VTS (Video Title Set) 3 as shown in Fig. 1 of the specification. By way of further example, but not of limitation, the "one or more partial recording information objects" in the claims, as amended, is supported by the disclosure of VOBS 10 as shown in Fig. 1 of the specification. The Applicants submit that the acronym VOB is known to those skilled in the art to have a meaning of Video Object. Therefore, the Applicants submit that the statement in the specification that "One VTS 3 is recorded such that it is divided into a plurality of VOBS 10" at page 12, l. 2, supports the recitation of "a partial recording information area where one or more partial recording information objects are recorded" in the claims, as amended.

The Applicants submit that the claims, as amended, are allowable under 35 U.S.C. 112, first paragraph. The Applicants also direct the Examiner's attention to the discussion below regarding the rejection under 35 U.S.C. 112, second paragraph, for additional support for the claims, as amended, of the application. Therefore, the Applicants respectfully request that the rejection based on 35 U.S.C. 112, first paragraph, be withdrawn.

CLAIMS REJECTION - 35 U.S.C. 112, Second Paragraph

The Examiner rejects Claims 4-15 and 44-69 under 35 U.S.C. 112, second paragraph, as being unclear. Specifically, the Examiner states that he has difficulty in mapping the claim terminology with the remainder of the specification and the figures. The Examiner further states that the aggregate information area is interpreted as the data management area within the TOC area of both DVD and CD formats. The Examiner also states that the unit audio information is interpreted as a numerical value. The Examiner also states that the distinction between the unit audio attribute information and the partial recording information is not understood. Therefore, the Examiner requests that the Applicants provide a mapping between the terminology used in the claims "to those locations in the specification and drawings that match the above terminology so a clear and unambiguous understanding of the claims can be ascertained."

The Applicants note that:

“A fundamental principle contained in 35 U.S.C. 112, second paragraph is that applicants are their own lexicographers. They can define in the claims what they regard as their invention essentially in whatever terms they choose so long as the terms are not used in ways that are contrary to accepted meanings in the art.”
MPEP 2173.01

Therefore, the Applicants submit that the terms used in the claims do not have to exactly match the terms used in the specification. The Applicants further submit that they are under no obligation to provide a mapping between the terms and features of the claims and the description portion of the specification. The Examiner is reminded that “the examiner’s focus during examination of claims for compliance with the requirements of definiteness of 35 U.S.C. 112, second paragraph is whether the claim meets the threshold requirements of clarity and precision.” See MPEP 2173.02. So the Applicants submit that there is no requirement for matching terminology.

However, to assist the Examiner in the examination of the claims, and to also show how the present claims distinguish over the cited prior art, the Applicants provide the following remarks for showing support in the specification for claim terminology for an exemplary claim. Please note that the citation of portions of the specification for support and explanation of the claim terminology is for exemplary purposes and should not be interpreted as limiting the claims. Specifically, while the specification discusses embodiments of the present invention in regard to DVD technology, the Applicants submit that the present invention is not limited to DVD technology.

Examination of the claim terminology used in Claim 44, as amended, with the addition of reference characters as used in the figures may assist the Examiner in understanding the scope of the invention as claimed. Claim 44 recites (with reference characters shown in bold and in parenthesis):

44. An information storage medium (1) comprising:
a recording information area (3) and
an aggregate attribute information area (2),
wherein the recording information area comprises:
a partial recording information area where one or more partial recording
information objects (VOBS) are recorded, each of the partial recording
information objects (VOBS) including one or more unit audio information
objects (43) which are logically defined; and
a control data area (11) where control data including partial recording information
attribute information is recorded, the control data corresponding to each of
the partial recording information objects (VOBS), the partial recording
information attribute information indicating attributes of the
corresponding partial recording information objects (VOBS),
and wherein one or more unit audio information attribute information pieces (68) are
collectively recorded in the aggregate attribute information area (2), the one or more unit
audio information attribute information pieces (68) corresponding to each of the unit
audio information objects (43) and indicating attributes of the corresponding unit audio
information objects (43) respectively, and wherein the aggregate attribute information
area (2) is formed at a position on the information storage medium such that the one or
more unit audio information attribute information pieces (68) can be detected prior to the
one or more partial recording information objects (VOBS) and the control data (11).

The features recited in Claim 44 may be further explained on a feature by feature basis as
follows:

Claim Feature	Explanation and Support
Information storage medium (1)	A DVD disk 1. See page 11, ll. 11 - 12.
a recording information area (3)	A plurality of VTSS (Video Title Set) 3. See page 11, ll. 11-16.
an aggregate attribute information area (2)	A video manager 2 containing, at least, information related to the whole video and audio information recorded on the DVD. See page 11, l. 25 to page 12, l. 1
wherein the recording information area comprises: a partial recording information area where one or more partial recording information objects (VOBS) are recorded . . . a control data area (11)	'One VTS 3 is recorded such that it is divided into a plurality of VOBs 10 . . . as shown in FIG. 1" See page 12, ll. 2 - 5 and Figures 1 and 4. That is, a plurality of VOBs 10 correspond to a "partial recording information object" and control data 11 corresponds to the "control data area."
each of the partial recording information objects (VOBS) including one or more unit audio information objects (43) which are logically defined	A unit audio information object corresponds to a track or PGC 61. See page 10, line 24, and page 15, line 23 - page 17, line 4. As described on page 16, lines 22 to 23, "one title 62 is logically constructed of one or a plurality of PGCs 61 (PGC #1, PGC #2, ...) as shown in FIG. 2." As described on page 17, lines 3 to 4, "all information included in the logical VTS 63 shown in FIG. 2 is recorded as one VTS 3 in the DVD 1 shown in FIG. 1." Therefore, the substantial information portion of VTS (i. e., VOBS: partial recording information object) includes one or a plurality of PGC (track: unit audio information object).

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where control data including partial recording information attribute information is recorded, the control data corresponding to each of the partial recording information objects (VOBS), the partial recording information attribute information indicating attributes of the corresponding partial recording information objects (VOBS),	The partial recording information attribute information corresponds to audio attribute information 12 in a control data area 11 in VTS 3. The contents of the partial recording information attribute information are disclosed on page 20, line 23 to page 21, line 11 and FIG. 5.	6091674
wherein one or more unit audio information attribute information pieces (68) are collectively recorded in the aggregate attribute information area (2)	See page 21, lines 15 to 17, and FIG. 6.	well known
the one or more unit audio information attribute information pieces (68) corresponding to each of the unit audio information objects (43) and indicating attributes of the corresponding unit audio information objects (43) respectively,	See page 21, lines 15 to 25, and FIG. 6.	
wherein the aggregate attribute information area (2) is formed at a position on the information storage medium such that the one or more unit audio information attribute information pieces (68) can be detected prior to the one or more partial recording information objects (10) and the control data (11)	The video manager 2 is located prior to the VTSS. See Figure 1. As explained above, the VTSS contain the VOBs. Therefore, the video manager would be detected prior to the VOBs within the VTSS. Further, as explained above, the audio attribute information is recorded in the audio pack 43 <u>and</u> the control data 11 in the VTS 3 <u>and</u> in the control data in the video manager 2. Therefore, since the audio attribute information is in the video manager, "the one or more unit audio information attribute information pieces can be detected prior to the one or more partial recording information objects and the control data."	- well known

As discussed above, the explanation of the features in Claim 44 presented above is for explanation purposes only and not to limit the scope of Claim 44. The scope of Claim 44 is to be based upon the language of the claim.

The Applicants submit that the claims, as amended, and with the explanation presented above, are allowable under 35 U.S.C. 112, second paragraph. Therefore, the Applicants respectfully request that the Examiner withdraw the rejection of the claims based on 35 U.S.C. 112, second paragraph.

CLAIMS REJECTION - 35 U.S.C. 103

The Examiner rejects Claims 4-15 and 44-69 under 35 U.S.C. 103(a) as being made obvious by Heo in view of Yonemitsu. The Applicants submit that the claims, as amended, are allowable over the Heo in view of Yonemitsu.

With regard to independent Claims 4, 7, 10, 13, 44, 52, and 60, the Applicants submit that the cited references do not teach, disclose, or suggest:

wherein one or more unit audio information attribute information pieces are collectively recorded in the aggregate attribute information area, the one or more unit audio information attribute information pieces corresponding to each of the unit audio information objects and indicating attributes of the corresponding unit audio information objects respectively, and wherein the aggregate attribute information area is formed at a position on the information storage medium such that the one or more unit audio information attribute information pieces can be detected prior to the one or more partial recording information objects and the control data,

as claimed in Claim 4, and similarly claimed in Claims 7, 10, 13, 44, 52, and 60.

The Examiner cites Heo, col. 3, lines 25 + for support of the rejection of independent claims 4, 7, 10 and 13. However, this portion of Heo appears to refer to the video title set information management table, i. e., a VTS. As described in the present specification, a DVD may contain several VTSs. Heo appears to acknowledge this by stating that "in each of the information area of the DVD video disk, a video title set information management table is recorded, and in the data areas sequential thereto, the audio/video data are recorded." Further, each video title set information management table disclosed by Heo will contains control data regarding the attributes of the audio and video data. See table 2b of Heo. Further, Heo appears to make no disclosure of a video manager section disposed prior to the VTSs.

However, Claim 4, as amended, recites, in part, "wherein the aggregate attribute information area is formed at a position on the information storage medium such that the one or more unit audio information attribute information pieces can be detected prior to the one or more partial recording information objects and the control data." In Heo, the one or more unit audio

information attribute information pieces can not be detected prior to the control data, since they are part of the control data. On the other hand, Claim 4 recites that the “one or more unit audio information attribute information pieces are collectively recorded in the aggregate attribute information area.” As explained above, the aggregate attribute information area may comprise a video manager area, which is necessarily recorded before any VTS. Therefore, the Applicants submit that the cited references do not teach, disclose or suggest an “aggregate attribute information area” as set forth in Claim 4.

Therefore, the Applicants submit that Claim 4, as amended, is properly allowable over the cited references. The Applicants further submit that Claims 7, 10, 13, 44, 52, and 60 are properly allowable over the cited references for the same reasons. The Applicants also submit that the claims that depend upon these claims are allowable at least based upon their dependencies.

Further, with regard to independent Claims 4, 7, 10, and 13, the Applicants submit that the Examiner has not shown that the cited references teach, disclose or suggest “a determining unit for determining which determines whether or not the obtained attributes of the unit audio information objects to be successively reproduced are identical” as claimed in Claim 4, and similarly claimed in Claims 7, 10, and 13. The Examiner appears to assert that determining whether or not the attributes are identical or not is inherent in the teachings of Heo. The Applicants respectfully disagree.

Heo appears to disclose that the audio attribute information is processed prior to playing the audio tracks. Therefore, for each audio track or set of audio tracks, Heo merely sets the reproduction apparatus to the present set of attributes. Heo does not require any knowledge of the past attributes. Therefore, Heo does not need make any determination of any differences in the attributes. However, since Heo needs to reset the reproduction apparatus for each set of attributes, Heo must delay the playback of audio tracks until the reproduction apparatus is configured for the current set of attributes. This could then slow the playback of successive tracks, since the reproduction apparatus must be configured for each set of attributes, whether or not there are any changes in the attributes.

However, determining “whether or not the obtained attributes of the unit audio information objects to be successively reproduced are identical” may allow the playback of audio for embodiments of the invention as claimed in Claim 4 to be sped up. That is, if it is determined that the attributes have not changed, reproduction can begin without delay. See also the present specification at page 22, l. 20 to page 23, l. 18.

The Applicants submit that the features alleged by the Examiner to be inherent in the teachings of Heo are actually not inherent. At best, Heo appears to disclose prior art methods for playback, which do not teach, disclose, or suggest each and every element as set forth in Claims 4, 7, 10, and 13. Therefore, the Applicants submit that the Examiner has not shown that the cited references teach each and every feature as set forth in Claims 4, 7, 10, and 13 and these independent claims, and the claims dependent on these independent claims, are properly allowable over these references.

If the Examiner disagrees, the Applicants respectfully request that the Examiner show specific support for the alleged teaching in the prior art, as required by 37 C.F.R. 1.104(c)(2), or show that the alleged inherent characteristic necessarily flows from the teachings of the applied art, as required by *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). If the Examiner asserts that the alleged characteristic is inherent, the Applicants respectfully direct the Examiner to the decision of the Board of Patent Appeals and Interferences in *Ex Parte Schricker*, 56 USPQ2d 1723, 1725 (B.P.A.I. 2000), in which the Board states that “when an examiner relies on inherency, it is incumbent on the examiner to point to the “page and line” of the prior art which justifies an inherency theory.” The Applicants respectfully request that the Examiner make the requisite showing, or withdraw the rejections.

CONCLUSION

Hence, the Applicants respectfully submit that all pending claims, as amended, are patentable over the cited references. In view of the above, reconsideration and allowance of the pending claims are respectfully solicited.

The Commissioner is authorized to charge any additional fees which may be required or credit overpayment to deposit account no. 12-0415. In particular, if this response is not timely filed, the Commissioner is authorized to treat this response as including a petition to extend the time period pursuant to 37 CFR 1.136(a) requesting an extension of time of the number of months necessary to make this response timely filed and the petition fee due in connection therewith may be charged to deposit account no. 12-0415.

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February 25, 2004
(Date of Mailing)

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(Signature)

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